

# Expected lifetime costs of social care for people aged 65 and over in England

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## Introduction

The PSSRU Unit Costs reports have generally been concerned with hourly or weekly costs of care. This article however reports some analyses of the lifetime costs of social care for older people. Why should lifetime costs be of policy interest?

Estimates of lifetime costs of care are very relevant to the current debate about how best to fund care and support in England. Individuals, especially those whose savings would render them ineligible for publicly funded care, will want to know broadly how much long-term care toward the end of their life may cost. This information could help them make informed decisions about how much to save or whether to seek private insurance for care costs. Government, and currently the Commission on the Funding of Care and Support, may find such estimates helpful information for the development of policy on funding of long-term care.

Private insurers may also find estimates of lifetime costs of care interesting. The insurance sector launched various long-term care products in the 1990s, but most of the providers have subsequently withdrawn from the market. One of the issues in the current debate is whether private insurance for long-term care could be revived. This raises questions about how expensive premiums would be and whether they would be affordable. A useful step toward estimating long-term care insurance premiums would be to estimate expected lifetime care costs as from age 65.

The lifetime costs of long-term care services can be substantial. The costs in most countries of long-term care services provided in residential facilities can seriously deplete the assets of service users who require care for several years, for example as a result of dementia. A US-based study suggested that the average value of lifetime long-term care expenditures for people turning 65 in 2005 was approximately \$47,000, with 28 per cent of individuals facing costs in excess of \$100,000 (Kemper et al., 2005).

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This article presents estimates of the expected lifetime costs of social care at age 65 for men and women, under current patterns of use of care services and under an alternative pattern of care scenario. It covers total social care costs, public and private. Hotel costs in care homes have been excluded and so have health care costs. It should be noted that, while estimates of life-time costs of care are relevant to estimating premiums for long-term care insurance, premiums cannot simply be equated with life-time costs of care under current patterns of care. People purchasing insurance may decide to purchase insurance for only part of the costs of care or alternatively may seek cover for hotel costs in care homes as well as care costs.

At PSSRU we have estimated lifetime costs of care using two different methods. Forder & Fernández (2009) have developed a dynamic microsimulation model of the long-term care system for older people in England. Amongst other things, this model simulates into the future and at the individual level patterns of service utilisation and associated costs, based on assumptions about year on year transitions between need, wealth and social support states, and about changes in the unit costs of services. These estimates can then be aggregated at the individual level through time to describe the projected distribution of lifetime costs of care. Another approach we have used is to incorporate data drawn from the PSSRU aggregate (or macrosimulation) model (Wittenberg et al., 2006) in an augmented life table using Sullivan's method (Sullivan, 1971) to estimate expectation of life with disability and expectation of life in receipt of home care and residential care.

This paper focuses on the estimation of the lifetime costs of care using the PSSRU aggregate model and the Sullivan method (see, for example, EHEMU, 2006) and compares the results to those obtained using the PSSRU dynamic microsimulation model.

## Expected duration of disability at age 65

We have used the prevalence rates of disability estimated from the 2001/2 General Household Survey (GHS) and data on the numbers of older people in care homes (see Wittenberg et al., 2006 for more details), in combination with an unabridged life table<sup>3</sup> for England produced by the Office for National Statistics, to estimate the expected duration of life with various levels of disability at age 65. People in care homes are assumed to be unable to perform two or more ADLs without help.

**Table 1 Expected duration of life with disability at age 65, for different levels of disability, years**

	Men	Women
Expected duration with any IADL or ADL disability	4.2	6.5
Expected duration of difficulties with any ADL	3.0	5.0
Expected duration of difficulties with any ADL (except bathing)	2.5	4.1
Expected duration of inability to perform one or more ADLs without help	1.5	2.7
Expected duration of inability to perform two or more ADLs without help	0.7	1.7
Total life expectancy at 65	16.7	19.3

As shown in table 1, our analysis suggests that men aged 65 can expect on average to live a further 16.7 years of which 2.2 years are with severe disability, where this is defined here as inability to perform without help one or more activities of daily living (ADLs). It also suggests that women aged 65 can expect on average to live a further 19.3 years of which 4.4

<sup>3</sup> Interim Life Table produced by the Office for National Statistics, covering England and based on data for the years 2004-6.

years are with severe disability. These estimates are dependent on the data on self-reported disability in the 2001/2 GHS and on data on the numbers of people in care homes. They assume that mortality and disability rates by age and gender will remain constant.

## Expected lifetime costs under current patterns of care

Using the same methodology, we have estimated the expected duration of service receipt at age 65 under current patterns of care, using data from the PSSRU aggregate long-term care finance model (Wittenberg et al., 2006) on the proportion of the older population receiving social care (residential and home care) by age and gender. The underlying data sources are for publicly funded official data from local authorities on the numbers of older people receiving residential care and home care and for privately funded care estimates based on surveys.

**Table 2 Estimates of life expectancy and duration of service receipt at age 65, years**

	Men	Women
Expected duration of residential care	0.43 (5–6 months)	1.04 (12–13 months)
Expected duration of local authority home care	0.47 (5–6 months)	0.84 (10 months)
Total life expectancy at 65	16.7	19.3

As shown in Table 2, men in England can expect to spend on average around 6 months receiving publicly funded home care and 6 months receiving residential care. Women can expect to spend on average around 10 months receiving publicly funded home care and 12 months receiving residential care. While the estimates for home care relate to publicly funded home care only, those for residential care cover local authority, privately and NHS funded institutional care. They are similar to those prepared by Bebbington et al. (1999). It should be noted that these estimates assume that patterns of care remain constant and that they do not take account of any changes in demand for care from changing expectations or reform of the funding system.

In order to estimate the lifetime costs of care, we have combined the estimated duration of service receipt with information about the costs of those services. Local authority funded residential care for older people cost £446 per week at 2006/7 prices (EX1 data, including hotel costs): NHS and privately funded care are more costly. Using the local authority rate, the expected total lifetime costs of residential care for older people is around £10,000 for males and £24,200 for females. Older local authority funded residents contribute some £145 per week on average in user contributions, which could be treated as a proxy for hotel costs. If £145 per week was excluded on the basis that residents will meet this sum from their general income, the residual lifetime costs would be £6,750 for men and £16,350 for women. Assuming that these costs take place in the last years of a person's life and that real unit costs of care rise by 2 per cent per year, the lifetime costs of care in care homes would be around £9,400 for men and £23,950 for women, in constant 2006/7 prices.

Local authority funded home care for older people cost £129 per week at 2006/7 prices (EX1 data). Using this rate, the expected total lifetime costs of local authority home care for older people is around £3,150 for males and £5,650 for females.

Total gross local authority expenditure on community-based social care for older people was £2,520 million in 2006/7 (excluding Supporting People), of which £1,690 million related to home care (EX1). Home care accounted for around 2/3 of the total. Scaling the estimates

for home care by 1.5, suggests that the lifetime costs of all local authority community-based services are around £4,750 for men and £8,500 for women. Assuming these costs take place on the last years of a person's life and that the real unit costs of care rise by 2 per cent per year, the lifetime costs for local authority community-based care services would be £6,600 for men and £12,450 for women, in constant 2006/7 prices.

Expenditure on privately purchased home care for older people is estimated at around £1,000 million per year (PSSRU modelling based on 2001 GHS data). Inclusion of private home care increases the estimates of lifetime costs of publicly and privately funded community-based services to some £9,250 for men and £17,400 for women.

These estimates suggest, under patterns of services, total lifetime costs at age 65 of social services – residential and community-based – of around £18,650 for men and £41,350 for women. These include publicly and privately funded care but exclude an element for hotel costs in care homes and exclude costs of assessment and care management. The weighted average for men and women together would be around £31,500, at 2006/7 prices.

These results compare very well with those obtained by estimating the lifetime costs of care at age 65 using the PSSRU dynamic microsimulation model. Forder & Fernández (2009, p. 26) estimate that the average lifetime expected cost of care for males is £22,300, while for females it is £40,400. The average for both genders is £31,700. Their results also show that the underlying distribution of those costs is highly skewed, with a small number of cases pushing up average costs.

### **Expected lifetime home care costs under alternative carer blind-type of care system**

PSSRU work on projections of long-term care expenditure has involved the development of a scenario that explores the implications of making services more 'carer-blind' by allowing disabled people living with others to receive the same level of local authority domiciliary services as those living alone (Pickard et al., 2000, Wittenberg et al., 2006). Under this scenario, the probability of receipt of local authority home care among older people living with others would match the current probability of receipt of local authority home care among those living alone.

The scenario does not extend to privately funded care since a change of policy by councils would not increase private purchase of care but could even reduce it as some older people would gain publicly funded care. It has also not been extended to residential care. Older people who are cared for in the community by informal carers might still prefer not to enter a care home if publicly funded care became carer-blind but rather choose to benefit from the expanded formal home care.

**Table 3 Expected duration of use of home care at age 65 under a carer blind type of scenario, years**

	<b>Men</b>	<b>Women</b>
Expected duration of local authority home care	0.73 (8–9 months)	1.13 (13–14 months)
Total life expectancy at 65	16.7	19.3

The expected lifetime costs of local authority community-based care under this scenario would be £10,250 for men and £16,700 for women. If we assume no changes in the use of private home care or residential care, the total expected lifetime costs of care would be £22,300 for men and £45,650 for women. The weighted average for men and women together would be £35,500 at 2006/7 prices.

## Conclusion

This paper has estimated, using data from the PSSRU aggregate model and the Sullivan method, that the weighted average lifetime costs of care would be around £31,500 under current patterns of care and £35,500 under a 'carer-blind' system. Comparison with estimates produced using the PSSRU dynamic microsimulation model show that the results are remarkably similar. These results can contribute to the current debate in England about the financing of long-term care. Should a system of long-term care insurance be considered, this research suggests that, in order to fully insure for the costs of formal care given today's patterns of care each individual would need to be insured for at least £31,500.

Some limitations of these analyses should be recognised:

- The estimates of expected duration of disability are based on current patterns of disability and assume that they will remain as reported in the 2001/2 GHS.
- The estimates of expected duration of receipt of services are rooted in recent patterns of care. No allowance is made for the potential impact of rising expectations, reform of the funding system or changes in use of services resulting from insurance.
- The analyses assume that the unit costs of care rise by 2 per cent per year in real terms. Trends in the unit costs of care are likely to depend heavily of trends in the wages of care staff which are inevitably uncertain.

Insurance premiums would need to take account of other factors in addition to the expected costs of care. In particular they would need to include allowance for administrative and other costs which have proved substantial in the USA. Moreover, as noted in the introduction, people purchasing insurance may decide to purchase insurance for only part of the costs of care or alternatively may seek cover for hotel costs in care homes as well as care costs.

Further research on this topic is required. PSSRU are collaborating in a study conducted with researchers from the University of East Anglia, Nuffield Trust and University of Barcelona, and funded by the AXA Research Fund, on how can private long-term care insurance supplement state systems: the UK as a case study.

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